

U.S. Army Corps of Engineers
Baltimore District

Public Notice

In Reply to Application Number NAB-2006-10437-P04 (PPL/Holtwood Dam)

PN-08-68

Comment Period: October 17, 2008 to November 17, 2008

THE PURPOSE OF THIS PUBLIC NOTICE IS TO SOLICIT COMMENTS FROM THE PUBLIC ABOUT THE WORK DESCRIBED BELOW. AT THIS TIME, NO DECISION HAS BEEN MADE AS TO WHETHER OR NOT A PERMIT WILL BE ISSUED.

The Baltimore District has received an application for a Department of the Army Permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (33 U.S.C. 1344), as described below:

APPLICANT: Pennsylvania Power and Light (PPL)/Holtwood Hydroelectric Project

LOCATION: In the Susquehanna River between York and Lancaster Counties, Pennsylvania.

PURPOSE AND NEED: The applicants stated purpose and need is to seek an amendment to the existing FERC license to authorize the redevelopment of the existing Holtwood Hydroelectric Project. Expanding the capacity of the Project would increase the amount of clean hydropower generation to help meet state goals under Pennsylvania's Alternative Energy Portfolio Standards Act. The proposed improvements would enhance upstream passage of anadromous fish in the Susquehanna River and establish conservation flows from the Project.

WORK: PPL proposes, in accordance with the attached plans, to perform site preparation activities and to construct supporting facilities for the proposed expansion of the existing Holtwood Hydroelectric Facility. The Holtwood Project currently consists of a 3,075-foot-long and 55-foot-high dam that impounds 8 miles of the Susquehanna River and a powerhouse with 10 turbines. PPL has filed an application for an amendment to its Federal Energy Regulatory Commission (FERC) license to (1) increase the overall installed capacity at the project from 107.2 megawatts (MW) to 195.5 MW; (2) increase the hydraulic capacity from 31,500 cubic feet per second (cfs) to 62,100 cfs and (3) extend the license term by 16 years to August 31, 2030. Approximately 1.5 million cubic yards (cyds) of rock and other materials will be excavated upstream, downstream and adjacent to the existing power house to facilitate construction and operation of the new power plant and to improve the existing migratory fish passage facility through construction of additional passage routes for American Shad and other migratory fishes.

For purposes of this Public Notice, PPL has defined the following habitats within the Susquehanna River.

<u>Deep Water Habitat</u>—permanently inundated with greater than three feet of water.

<u>Shallow Water Habitat</u>—permanently inundated with less than three feet of water.

<u>Fluctuation Zone Habitat</u>—consists of bedrock ledge areas that are located in a region that experiences regular wetting from operation of the Holtwood Powerhouse but not regular enough to provide consistent habitat.

The total proposed project would permanently impact approximately 6.98 acres of shallow water habitat, 16.81 acres of fluctuation zone habitat, 12.22 acres of deep water habitat, 0.70 acre of wetlands and 3.70 acres of forested floodplain as a result of the proposed blasting and excavation of bedrock and other materials. Approximately 0.08 acre of shallow water habitat, 0.06 acre of fluctuation zone habitat, 0.35 acre of deep water habitat, 0.91 acre of forested floodplain and 2.52 acres of shoreline will be impacted by the permanent discharge of dredged and/or fill material necessary to accomplish this project. In addition, approximately 0.63 acre of shallow water habitat, 3.97 acres of fluctuation zone habitat, 0.86 acre of deep water habitat, and 4.12 acres of forested floodplain and 0.50 acre of wetlands will be impacted by the temporary discharge of dredged and/or fill material necessary to accomplish this project.

Additional project plans and project reports can be viewed on the PPL/Holtwood Web site at www.holtwood2010.org

FERC is the lead Federal agency and has prepared a Draft Environmental Impact Statement (DEIS) for work associated with the expansion of the power plant facilities (Docket No. 1881-050). FERC published the DEIS for comment on July 25, 2008. Hard copies of the DEIS have been mailed to Federal, State, and local agencies; public interest groups; individuals and affected landowners who requested a copy of the DEIS or provided comments during

scoping. The DEIS was prepared to satisfy the requirements of the National Environmental Policy Act (NEPA). The environmental impact of construction activities in Waters of the U.S., including jurisdictional wetlands will be reviewed by the Corps and addressed in the Final EIS (FEIS) prepared by FERC and/or environmental documentation prepared by the Corps. The Corps permit decision will be made following issuance of the FEIS.

The following work is proposed:

<u>POWERHOUSE:</u> A new 80.6 MW powerhouse will be constructed adjacent to the existing powerhouse on the Lancaster County (east) side of the river bringing the total capacity at Holtwood Dam up to 195.5 MW. Approximately 31,200 square feet (sq ft) of land will be excavated for construction of the new powerhouse. Approximately 293,055 cyds of rock and 63,529 cyds of soil will be excavated outside of the limits of waters of the U.S. for the construction of the new powerhouse and attendant features. The tailrace and forebay must be excavated to accommodate the increased flow of approximately 30,000 cfs of water through two new proposed turbines for the purpose of generating energy. The features will additionally provide for fish passage and recreational use.

Forebay Excavation: Excavation of approximately 309,439 cyds of material, cf which 8,397 cyds is from 0.19 acre of shallow water and 198,541 cyds is from 4.56 acres of deep water zone for the purpose of increasing the depth of the existing forebay, is necessary for the expansion of the forebay from 5.8 acres to 11.4 acres.

Forebay Earthen Berm: Construction of an earthen berm is necessary for the construction of the forebay under dry conditions.

Forebay rip-rap: Approximately 19,260 cyds of rock and fill will be placed along the banks of the new forebay, resulting in impacts to approximately 109,930 sq ft (2.52 acres) of floodplain.

Intake Cellular Cofferdam: The discharge of approximately 3,641cyds of sanc and rock for the construction of a cellular cofferdam will result in temporary impacts to approximately 1,743 sq ft of shallow water habitat and 2,802 sq ft of deep water habitat. The purpose of the cofferdam is to retain water in the forebay, restricting entrance into the intake structure of the new powerhouse. Approximately 60 cyds of tremie concrete placed along the base of the cofferdam cell walls will be left in place, following removal of the cofferdam.

Earthen Dike at Downstream End of New Power House: The temporary discharge of approximately 4,774 cyds of sand and rock on a previously developed area within the floodplain is necessary to create an earthen dike, for the purpose of protecting the new powerhouse site from flood events during construction. This area will later be excavated as part of the overall construction.

Skimmer Wall: The project includes the removal of an exiting skimmer wall and the construction of a new 600-foot long skimmer wall that will tie into the upstream side of the existing main dam and follow the alignment of the existing wall to the Lancaster County (east) shore of the Susquehanna River. The construction of an access road on the skimmer wall increases the deck width of the wall from 16 ft to 22 ft. The discharge of approximately 3,661 cyds of tremie concrete for the construction of five 25-foot wide piers, spaced at 100-foot intervals, are necessary for the construction of the new skimmer wall/road, resulting in permanent impacts to approximately 1,500 sq ft of waters of the U.S. The discharge of 1,330 cyds of tremie concrete is necessary for the construction of a cofferdam, which would form the north abutment to the new skimmer wall, resulting in permanent impacts to approximately 358 sq ft of shallow water habitat and 672 sq ft of deep water habitat. The installation of steel sheeting is necessary for the construction of a temporary cofferdam, which would form the south abutment to the new skimmer wall, resulting in permanent impacts to approximately 8 square feet of deep water habitat.

<u>FISH LIFT:</u> The existing fish lift will be modified with the installation of a new intake pipe designed to draw at least 650 cfs of water (an increase of approximately 300 cfs) through a screened entrance behind the new skimmer wall, directly from the enlarged forebay, for the purpose of increasing the amount of attraction flows for the fish lift.

PPL is also proposing to add an extension to the draft tube of the existing Turbine Unit Number 1 in order to route the water through the plant deflection wall and into the Piney Channel, on the east side of the spillway. This addition of approximately 3,150 cfs into Piney Channel is expected to help attract upstream migrating fish to the fish lift entrance. PPL is also proposing a 200 cfs conservation flow down Piney Channel to mitigate for excavated shallow water habitat. PPL will also redesign and reconstruct the existing fish lift entrance C.

Unit Number 1 Draft Tube extension: two 15.5 ft wide by 17 ft high, 53-ft long tremie concrete passages (2,277 sq ft/2,144 cyds)

Tailrace Cofferdams: 55 ft tall with 30-foot diameter cells (1,378 sq ft), 2807 cyds temporary, 40 cyds of tremie concrete will remain.

Spillway Cofferdam: 7,616 sq ft, 9,873 cyds temporary, 150 cyds of tremie concrete will remain.

TAILRACE: The excavation of the existing tailrace will accommodate the flow of additional water, while maintaining the existing 50.75-foot net operating head on both the existing and new units. The excavation will extend from the powerhouse downstream to approximately 1,700 feet past the Route 372 Bridge.

Tailrace Excavation: PPL proposes to excavate approximately 802,972 cyds of rock and 4,035 cyds of soil from 30.89 acres of the Susquehanna River and adjacent lands, for the purpose of widening and deepening the channel. This is broken down into the following permanent impacts:

Deep water habitat - 7.66 acres Shallow water habitat - 4.88 acres Fluctuation zone habitat - 12.23 acres Forested floodplain habitat - 3.70 acres Existing developed lands - 1.69 acres Emergent wetlands -0.03 acre Forested wetlands - 0.70 acre

Tailrace Cofferdams: Temporary cofferdams constructed of approximately 1,592 cyds of gravity block or frame supported membrane, at the base of four of the Route 372 Bridge piers, will result in temporary impacts to approximately 2,236 sq ft of fluctuation zone habitat, 795 sq ft of deep water habitat, and 44 sq ft of shallow water habitat. The discharge of approximately 300 cyds of tremie concrete, used to seal the base of these cofferdams, will be left in place upon removal of the cofferdam.

Three Temporary Tailrace Rock Berms: The construction of rock berms on both the upstream and downstream sides of the excavation areas is necessary to prevent water from flowing downstream into the excavation zones, as well as to prevent the backwater effects from Conowingo Dam, which has potential to flood the excavation areas.

- (1) neck of western two channels: 330 ft long by 39 ft wide by 6 ft high (1,980 cyds)
- (2) downstream end of western main tailrace: 425 ft long by 79 ft wide by 16 ft high
- (11,837cvds)
- (3) tailrace connector channel: 300 ft long by 47 ft wide by 8 ft high (2,756 cyds)

Tailrace Rip-rap: Removal of approx. 17,500 sq ft (0.40 acre) of forested floodplain on the Lancaster shoreline is necessary to facilitate excavation in the tailrace. Approximately 1,950 cyds of rock rip-rap will be placed for streambank stabilization.

PINNEY CHANNEL:

Pinney Channel Excavation: Propose to excavate downstream of the Unit 1 draft tube exit a distance of 1,600 feet to improve channel conveyance and reduce backwater on the unit while still preserving an existing whitewater feature in Piney Channel. Excavation in Piney Channel would include removing approximately 66,898 cyds of bedrock from 152,976 sq ft (3.51 acres) of fluctuation zone habitat, 80,343 sq ft (1.8 acre) of shallow water habitat and 57 sq ft of deep water habitat in the Susquehanna River. Additional excavation would occur at the downstream end of Piney Channel to create a 12 ft wide and 3 ft deep channel for fish passage during low flow. A total of 3,797 cyds of bedrock would be excavated from 46,564 sq ft (1.07 acre) of the fluctuation zone habitat and 2,822 square feet (0.06 acre) of shallow water habitat in the Susquehanna River to create the fish passage channel in the lower end of Piney Channel.

Rip-rap on Piney Island: 370 cyds (2,000 sq ft) in the vicinity of the Bald Eagle nest Three Piney Channel Rock Berms:

- (1) Unit 1 Draft Tube extension: 165 ft long by 47 ft wide by 6 ft high (990 cyds)
- (2) Western Fork of Piney Channel: 85 ft long by 59 ft wide by 6 ft high (510 cyds)
- (3) Eastern Fork of Piney Chanel: 85 ft long by 53 ft wide by 7 ft high (639 cyds)

ROADS: Temporary roads will be constructed to gain access to proposed excavation sites and other project activities located near and on Piney Island. Generally, construction roads will be 50-feet wide at their base.

Railroad Bridge Crossing Approximately 86,910 cyds of rock, excavated from the project site, will be discharged, for the purpose of constructing a new road and bridge over the Norfolk-Southern Railroad track along the Lancaster County shore to allow construction vehicles unobstructed access to Holtwood Dam throughout the duration of the project. The road leading to the bridge will result in impacts to approximately 159 sq ft of upland forest. The bridge will be left in place following construction to provide enhanced public access to the project tailrace and powerhouses.

Lower Tailrace Bridge Crossing: The construction of a temporary bridge, measuring approximately 450 feet in length and 50 feet in width, will create access to the tailrace and lower Piney Channel. The discharge of approximately 580 cyds of fill, for the purpose of constructing two bridge abutments, will result in temporary impacts to approximately 800 sq ft of Waters of the U.S. The bridge and two abutments will be removed upon completion of excavation. A third abutment along the Lancaster shore will remain in place permanently and will serve as a 40 foot by 10 foot tailrace fishing platform.

Upper Tailrace Bridge Crossing: The discharge of 300 cyds of fill, resulting in impacts to approximately 800 sq ft of Waters of the U.S., is necessary for the construction of a temporary bridge, measuring 270 feet in length and 50 feet in width. This bridge will provide access to the Holtwood Dam deflection wall for Unit One diversion, the upper Piney Channel excavation, and the fish lift modifications.

Lower Piney Channel Road: Construction of a temporary road will extend from the lower tailrace bridge downstream along the eastern shore of Piney Island for approximately 320 feet, turn west across Piney Island, back downstream along the western shoreline of Piney Island to areas south of the Route 372 bridge. Access roads will be constructed to extend to each part of the proposed excavation areas south of Piney Island and the Route 372 Bridge, as well as areas in the lower tailrace and Piney Channel fish passage channel. Approximately 62,014 sq ft (1.42 acres) of forest on the island will be cleared. In addition, the road will temporarily fill approximately 63,390 sq ft (1.45 acres) of the fluctuation zone habitat, and 11,874 sq ft (0.27 acre) of shallow water habitat in the Susquehanna River.

Lower Tailrace Road: Construction of a temporary access road along the Lancaster County shoreline is necessary to access the lower tailrace for loading and removing excavated material. A 100-foot wide clearing of forest below the Route 372 Bridge is planned to allow the loading. The road and clearing will impact approximately 108,290 sq ft of riparian forest, 11,537 sq ft of existing disturbed land and 5,006 sq ft of forested wetland, and will involve the temporary stream crossing involving the placement of two 5-foot diameter, 85-foot long culverts.

Upper Piney Channel Road: A temporary roadway will extend from the upper tailrace bridge along the eastern shore of Piney Island and through an opening that will be made in the diversion wall to access the western shore of Piney Island. Approximately 7,160 cyds of rock will be discharged into 16,857 sq ft (0.39 acres) of wetlands, 70,581 sq ft (1.62 acres) of fluctuation zone habitat, and 9,229 sq ft (0.21 acre) of upland forest.

<u>DISPOSAL AREA:</u> The disposal of approximately 1,900,000 cyds of rock and other material is necessary. Approximately 1,790,000 cyds of rock and soil will be placed in approximately 32 acres of retired Ash Basin #1, located within the limits of Holtwood lands as shown on the attached plans. No impacts to Waters of the United States are associated with this disposal area. Approximately 110,000 cyds of the excavated rock would be used to rip-rap the forebay and tailrace and armor Piney Island in the area of a Bald Eagle nest, and to be used as fill in several other areas as described above.

WHITEWATER BOATING IMPACTS: Impacts are proposed to aquatic resources located below the Holtwood Dam that have been described as providing world-class white water rafting features. American Whitewater, a national non-profit river conservation and recreation organization, as well as others, are signatories to the June 13, 2008 Whitewater Settlement Agreement with PPL which addresses impacts to existing features and proposes mitigative measures to address these impacts.

RECREATIONAL IMPROVEMENTS: The applicant proposes to provide fishing and boating access at points above and below the dam. The proposed boat ramps were designed to address the potential adverse effects of reduced reservoir elevations on public boating access during drought conditions. The following is proposed:

Tailrace Fishing Access: (Lancaster County side) a new elevated roadway will be constructed over the Norfolk-Southern railroad track along the Lancaster County shoreline for enhanced public access to the project tailrace and river corridor lands. Additional parking will be provided as well as an Americans with Disabilities Act (ADA) accessible trail and fishing platform. The 40 foot by 10 foot fishing platform will be retrefitted on the abutment of the lower tailrace temporary bridge. The abutment will require the permanent discharge of 150 cyds of tremie concrete over 400 sq ft of forested floodplain. The tailrace fishing access improvements will be constructed over 30,500 sq ft (0.70 acre) of forested floodplain area, previously disturbed as a result of construction of roads and other site prep work.

Pequea Boat Ramp: The Pequea Boat Ramp (Lancaster County side) will be expanded to include the addition of 18 trailer spaces, 3 car spaces, one new boat ramp, measuring approximately 20 ft in width by 129 ft in length, and a 25 ft by 20 ft ADA accessible fishing platform and dock in and adjacent to the Susquehanna River. The proposed improvements will require the discharge of approximately 667 cyds of material below the ordinary high water line (2,100 sq ft of shallow water habitat and 7,080 sq ft of deep water habitat) of the Susquehanna River. In addition, within the adjacent Pequea Creek an existing boat ramp will be removed and a new ramp measuring approximately 12 ft in width and 80 ft in length will be constructed downstream of the existing ramp.

York Furnace Boat Ramp: The existing two-lane boat ramp (York County side) will be extended by adding 35 cyds of tremie concrete in the Susquehanna River (1,020 sq ft of fill for each ramp). The new ramp will be 36 feet wide by 115 feet long.

MITIGATION:

The applicant proposes the following mitigation:

- 1. To develop and complete a wetland mitigation project adjacent to existing wetlands at the Reese Lower Patrick & Scott, Ltd. (RLPS) Architect's Property, located in Manheim Township, Lancaster County, Pennsylvania. The project includes the construction of approximately 0.25 acres of emergent wetlands and 1.96 acres of forested wetlands, 760 linear feet of forested riparian buffer plantings along Landis Run, and approximately 1.8 acres of upland forested buffer plantings. The applicant proposes to monitor the site for a 5-year period and the area shall be protected in perpetuity.
- 2. Pequea Creek empties into Lake Aldred, above Holtwood Dam. The proposed Pequea Creek Stream Restoration Project proposes to enhance a total of approximately 3,200 linear feet of the Pequea Creek currently impacted by agricultural activities. The project involves improving aquatic habitat; creating fish enhancement structures, bank stabilization, installing stream bank fencing with 2 cattle crossings and planting native riparian vegetation within the proposed minimum 25 foot buffers. This is Phase IV of an overall plan to restore the Pequea Creek and to reduce sediment from entering the Susquehanna River and ultimately the Chesapeake Bay.
- 3. In order to assist in the overall anadromous fish restoration efforts in the Chesapeake Bay and Susquehanna River, three dam removals are proposed
- a. The Zimmerman Dam, a timber crib dam, is situated on the Conestoga River. This dam is approximately 105 ft wide and 4-5 ft high and impounds over a half mile of river. The removal of the dam will open up seven additional miles of the Conestoga River.
 - b. The Smucker Dam, a concrete dam located on Groff Creek is 3-4 ft high and 15 ft wide.
- c. The Fisher Dam, located in a "high quality" section of Pequea Creek, is 3 ft high and 30 ft wide. This dam removal was previously authorized as part of a stream bank fencing project. However, additional funding was needed to accomplish the dam removal.
- 4. The applicant proposes to plant 7.6 acres of existing agricultural fields, located adjacent to the Susquehanna River and adjacent to forested wetlands, with native tree species. This property is owned by PPL and is located in Conoy Township, Lancaster County, Pennsylvania.

GENERAL:

Site layout for the overall Holtwood Project was based upon extensive interaction between PPL, their consultants, the resource agencies, experts in the field, and the public to design a project that would most practicably avoid and minimize impacts to Waters of the United States, including jurisdictional wetlands. Efforts were made to avoid, to the extent practicable, the long and short-term, direct and indirect adverse impacts to the Susquehanna River and it's associated aquatic habitats, historical and cultural resources, species of special concern and recreational resources.

The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely effect Essential Fish Habitat (EFH). As documented in the FERC DEIS, there is no Essential Fish Habitat in the vicinity of the Holtwood Project. This determination may be modified if additional information indicates otherwise and would change the preliminary determination.

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects, thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or

deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The applicant must obtain any State or local government permits which may be required.

The applicant is required to obtain a Water Quality Certification, in accordance with Section 401 of the Clean Water Act, from the Pennsylvania Department of Environmental Protection (PADEP). The Corps hereby requests that the PADEP review the proposed discharges for compliance with the applicable water quality standards. The 401 certifying agency has a statutory limit of one year to make their decision. Any written comments concerning the work described above which relate to Water Quality Certification should be sent to Allyson McCollum, Permitting and Technical Services Section, Pennsylvania Department of Environmental Protection, 909 Elmerton Ave., Harrisburg, PA 17110.

The applicant is also required to obtain Coastal Zone Management Consistency determination from the PADEP. On May 2, 2008, the PADEP determined that the proposed action is located outside of Pennsylvania's coastal zones and would not affect them.

A prel minary review of this application indicates that the proposed work will not affect listed species or their critical habitat pursuant to Section 7 of the Endangered Species Act as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

The PA State Historic Preservation Officer (SHPO) reviewed the results of archaeological studies and concluded by letter dated 30 July 2008 that based on the plans reviewed, no archaeological resources will be affected by the proposed action. Additional comment is now requested to address the proposed mitigation areas. Currently unknown archeological, scientific, prehistoric, or historical data may be lost or destroyed by the work to be accomplished under the requested permit.

The evaluation of the impact of the work described above on the public interest will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 of the Clean Water Act. Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received by the District Engineer, US Army Corps of Engineers, Baltimore District, PO Box 1715, Baltimore, Maryland 21203-1715, within the comment period as specified above to receive consideration. Also, it must clearly state forth the interest which may be adversely affected by this activity in the manner in which the interest may be adversely affected.

It is requested that you communicate the foregoing information concerning the proposed work to any persons known by you to be interested and not being known to this office, who did not receive a copy of this notice.

Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received within the comment period as specified above to receive consideration. P ease submit written comments and request for Public Hearing to:

Patricia Strong U.S. Army Corps of Engineers, Baltimore District Regulatory Branch PO Box 1715, Baltimore, Maryland 21230-1715

FOR THE DISTRICT ENGINEER

Wade B. Chandler

Acting Chief, Pennsylvania Section

Enclosures